

Bandwidth Allocation Method and Apparatus for Fixed Wireless Networks

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ABSTRACT

10 A simple, fair, good-performance bandwidth allocation algorithm for wireless
networks is presented. Using a matrix of interlink interference and a list of links'
bandwidth requests, the algorithm can schedule link activities to obtain non-collision
transmissions. All bandwidth requests are served fairly and near-optimally based on
the heuristic algorithm. Bandwidth granted for each link is prorated based on its
15 requested bandwidth, total requested bandwidth in the network, and network
capacity. The algorithm can be used for centralized bandwidth allocation and works
with any network topology, including mesh networks.